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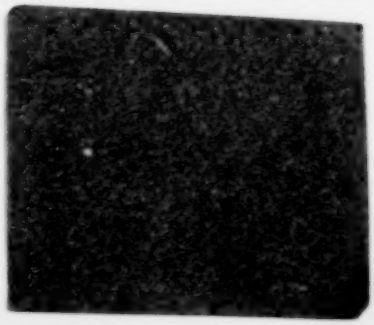

SUMMARY

of the

REPORT OF THE IN-DEPTH REVIEW OF THE NATIONAL COMMUNICATION

of

ESTONIA

(The full text of the report (in English only) is contained in document FCCC/IDR.1/EST)

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Summary[1]

1. The in-depth review was carried out between April and August 1996, and included a visit by the team to Tallinn, from 16 to 17 May 1996. The team included experts from Costa Rica, Finland, Poland and the Organisation for Economic Co-operation and Development (OECD).

2. In its first national communication Estonia did not fully comply with the approved reporting guidelines for national communications. However, a significant amount of additional supporting material on Estonia's greenhouse gas (GHG) emissions inventory, policies and measures, and projections of emissions was provided to the review team during the country visit. This additional documentation shows that Estonia now has much of the information requested in the reporting guidelines, and is continuing to work towards improvement of the information provided in the communication. In preparing its national GHG inventory, Estonia has followed, as far as possible, the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories (1994) and has initiated work, with the assistance of the United States Country Studies Program, to develop data using the IPCC standard tables and worksheets.

3. In its national communication, Estonia provided information on objectives and strategies for policies and measures which will eventually help to reduce GHG emissions and enhance sinks. Owing to its transitional circumstances, Estonia had not implemented policies and measures to reduce greenhouse gas emissions and enhance sinks at the time the national communication was submitted, and did not present a projection of emissions. The review team was given information on carbon dioxide (CO_2) emission scenarios that have been subsequently developed by Tallinn Technical University; the model is not disaggregated by sector. No information was included in the national communication on research, education, training and public awareness. During the review, the team was informed that since the national communication had been submitted, a vulnerability study of the country had been prepared according to which climate change is expected to increase food production and reduce consumption of energy for heating.

4. Emissions of GHG in 1990 were estimated at 46,479 Gg using IPCC 1994 global warming potential values (GWP), with CO_2 amounting to 37,797 Gg, methane (CH_4) 323 Gg and nitrous oxide (N_2O) 2.4 Gg. CO_2 removals by sinks were estimated separately, as required by the guidelines, at 8,555 Gg per year. Calculations by the review team showed that in terms of GWP carbon dioxide accounted for 81 per cent of GHG emissions, methane for 17 per cent and nitrous oxide for 2 per cent. For CO_2, the largest emission source is fuel combustion, contributing 98 per cent of the total, within which energy and transformation contributed 75 per cent, industry and

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[1] In accordance with decision 2/CP.1 of the Conference of the Parties, the full draft of this report was communicated to the Estonian Government, which had no further comments.

transport 7 per cent each and cement production 2 per cent. For CH_4 emissions, underground and surface oil-shale mining and operations in oil and natural gas distribution systems account for 67 per cent of total emissions, with agriculture contributing 19 per cent from enteric fermentation and animal waste and the waste sector about 13 per cent. Estimates of N_2O emissions are highly uncertain, with fuel combustion as the major source. The inventory data presented in the communication also estimate emissions of CO_2 and CH_4 from wetland drainage at 9,750 Gg, while CO_2 emissions from forests and land-use change amounted to about 3,400 Gg.

5. Estonia has not set any specific national target relating to emissions and removals of GHGs. Estonia expects to record a 40-50 per cent reduction of CO_2 emissions by the year 2000 compared to 1990 levels, primarily through the ongoing process of economic restructuring and removal of energy subsidies. The gradual increase of domestic energy prices towards world levels and privatization of industry led to a decline in the energy-intensive industrial sector of 40 per cent between 1990 and 1994. It is recognized that there is considerable potential for improving efficiency in the generation of heat and for conserving energy in residential buildings. Estonia has introduced measures for efficiency in energy production and conservation, and additional measures are planned. The number of road vehicles is expected to continue to increase as incomes rise, but the effect of this increase on greenhouse gas emissions could be partly offset by the improved fuel efficiency of new vehicles.

6. Estonia's per capita energy consumption is now at levels similar to those of neighbouring OECD member countries but pollution levels, and the energy and carbon intensity of the Estonian economy, remain higher than in European OECD countries by a factor of two for energy intensity, and a factor of four for carbon dioxide.

7. Estonia's energy balance and greenhouse gas emissions are dominated by oil-shale, which accounts for about 95 per cent of electricity generation, one quarter of the heat requirements, three quarters of total energy-related CO_2 emissions, and two thirds of methane emissions. Oil-shale reserves are expected to last for the next 30 years. Studies are under way to seek ways of improving the efficiency of oil-shale electricity generation and less carbon-intensive alternatives.

8. Estonia has made institutional arrangements to carry out energy planning and management, which will serve to attenuate longer-term trends in GHG emissions. The scientific community and non-governmental organizations play an important part in undertaking studies and influencing environmental policy and attitudes towards sustainable development. Estonia has a commitment to reduce transboundary pollution, which will also affect emissions of greenhouse gases, and is promoting energy efficiency. Estonia has a strong tradition of forest management and conservation. Forests cover almost half the land area and the sink capacity is likely to increase despite a greater expected reliance on wood-based products and resources.

9. The review team noted that the transition from a centrally planned to a market economy has required basic changes in legislative, administrative and fiscal arrangements, as well as

dramatic changes in most economic sectors, making it difficult to implement policies and measures and to assess their effects. The statistics system has undergone major modifications, which has made it particularly difficult to prepare the inventory and projections of greenhouse gas emissions. Additionally, funding constraints make important measures, such as those to improve the efficiency of energy production and use, difficult to implement. It was noted that the Government of Estonia is reviewing the data reported in the national communication and intends to include additional information on policies and measures and projections of emissions in its next communication.

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